

REMARKS

Claims 1, 4, 29, 33 and 41 have been amended to better address the objection and 112 rejection, and also to define the claimed invention and to better distinguish the claimed invention over the prior art. In particular, independent claims 1, 29 and 33 have been amended to recite, in part, “a coherent light source module” for generating “mutually orthogonally polarized beams of light (“wavefronts” in claim 32), which are spatially displaced with respect to each other and are in phase with one another.” Support for the amendments can be found throughout Applicants’ originally filed disclosure, for example at page 10, lines 13-25; page 25, lines 26-30; and Figures 1 and 4. Moreover, it is respectfully submitted that the claims, as amended, overcome the rejection under 35 U.S.C. § 112, first paragraph. No new matter has been entered.

The finality of the restriction requirement is noted. Applicants respectfully request that the non-elected claims be maintained in this application, without further Action, for possible rejoinder and/or for filing of a divisional application.

Turning to the art rejections, and considering first the rejection of claims 1, 3-11, 13, 14, 16-21, 26-33, 35, 40 and 41 under 35 U.S.C. § 102(b) as being anticipated by Kuchel (U.S. Patent No. 4,872,755), amended independent claims 1, 29 and 33 each require, in part, “a coherent light source module” for generating “mutually orthogonally polarized beams of light (“wavefronts” in claim 33), which are spatially displaced with respect to each other and are in phase with one another.” It is respectfully submitted that Kuchel fails to teach or suggest at least these features of independent claims 1, 29 and 33.

Nowhere within its four corners does Kuchel provide any teaching or suggestion of “a coherent light source module” for generating “mutually orthogonally polarized beams (or

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wavefronts) of light, which are spatially displaced with respect to each other,” as required by independent claims 1, 29 and 33. Kuchel teaches an interferometer containing “at least one optical delay device” for creating interference between particular beams with differing optical path lengths. Kuchel, col. 2, lines 47-52 and col. 4, lines 47-53. While Kuchel’s delay device introduces temporal delays between waves of light, Kuchel fails to teach or suggest spatial displacement, as required by the independent claims. For this reason alone, independent claims 1, 29 and 33 cannot be said to be anticipated by Kuchel.

Moreover, Kuchel fails to teach or suggest the “mutually orthogonally polarized beams of light . . . are in phase with one another,” as required by independent claims 1, 29 and 33. The effect of Kuchel’s delay device (10 in Fig. 1; 60 in Fig. 6) is to create multiple differing paths that the source beam may travel, with each path having a different path length. Thus, light that does not travel through the mirrored-path in the delay device will meet up and interfere with light that does travel through the mirrored-path in delay device (for example, OP₂ and OP₃ in column 4, lines 19-53). The two beams, which traveled different distances, will meet up and interfere within the delay device. Thus, Kuchel teaches the introduction of a phase difference between beams of light, by way of different optical path lengths, and furthermore, the phase difference is introduced within the source module. Even Kuchel admits the inevitable problem with such a construct having multiple potential path lengths – the unwanted components of the source beam, i.e. OP₁ and OP₄ “effect a reduction in contrast.” Kuchel, col. 4, lines 53-55. In contrast, Applicant’s beams or wavefronts are “mutually orthogonally polarized . . . spatially displaced with respect to one another and are in phase with one another,” within the “coherent light source” from which they are generated.

For at least the foregoing reasons, it is respectfully submitted that Kuchel cannot be said to anticipate or for that matter render obvious any of Applicants' independent claims 1, 29 or 33. Claims 3-11, 13, 14, 16-21, 26-28, 30-32, 35, and 40 all depend from one of independent claims 1, 29 or 33, as the case may be, and are therefore allowable over Kuchel for at least those reasons adduced above relative to the independent claims, as well as for their own additional limitations.

Claim 41 requires in part, "a Fizeau interferometer comprising a source of two polarized beams having polarization rotated with respect to each other and emanating from spatially separate origins." Kuchel fails to teach or suggest this. Instead, Kuchel merely teaches a single source. Even assuming *arguendo* that Kuchel can be said to teach a source and a "virtual source," as contended by the Examiner, these sources cannot be said to emanate "from spatially separate origins," as required by claim 41. For at least this reason, claim 41 also is allowable over Kuchel.

Turning next to the rejection of claims 12, 15, 16 and 22-25 under 35 U.S.C. § 103(a) as being unpatentable over Kuchel as applied to their respective independent claim or as applied to claims 1 and 33, each of claims 12, 15, 16 and 22-25 depend upon independent claim 1. The deficiencies of Kuchel with respect to independent claim 1 are discussed above. It is respectfully submitted that claims 12, 15, 16 and 22-25 are allowable over Kuchel for the same reasons adduced above relative to claim 1, as well as for their own additional limitations.

RCE fees are being paid via EFS WEB in the amount of \$405.00.

Having dealt with all the objections raised by the Examiner, the Application is believed to be in order for allowance. Early and favorable action is respectfully requested.

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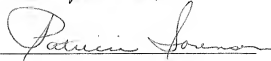
Respectfully submitted,



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